Docket No. 12483US05

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION OF:	)	
	)	
Torp et al.	)	**EXPRESS MAIL NO. EV 327683448US**
	)	
	)	**Date: November 10, 2003**
SERIAL NO.: Unassigned	)	
	)	
FILED: Herewith	)	
	)	
FOR: METHOD AND APPARATUS FOR PROVIDING REAL-TIME CALCULATION AND DISPLAY OF TISSUE DEFORMATION IN ULTRASOUND IMAGING	)	

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sirs:

Pursuant to 37 C.F.R. § 1.56, it is respectfully requested that the following reference(s) be considered in the examination of the above-identified patent application:

US – 5,800,356-A	Criton et al.
US – 5,474,070-A	Ophir et al.
US- 5,840,028-A	Chubachi et al.
US – 5,785,654-A	Linuma et al.
US – 5,615,680-A	Sano
US – 5462058-A	Yamada et al.
US – 6,099,471-A	Torp et al.
US – 6,352,507	Torp et al.
WO-94/236532	PCT – 10/94

Heimdal et al.: "Real-time Strain Velocity Imaging (SVI)" 1997 IEEE Ultrasonics Symposium Proceedings, vol. 2, 1997, pages 1423-1426.

Jackson et al.: "3-D Ultrasonic Imaging of Structure and Elasticity of the Carotid Bifurcation" IEEE Ultrasonic Symposium Proceedings, vol. 2, 1995, pages 1419-1422.

Kanai et al.: "Noninvasive Evaluation of local Myocardial Thickening and its Color-Coded Imaging" IEEE Transactions and Ultrasonics, Ferroelectrics and Frequency Control, vol. 44, no. 4, July 1997, pages 752-768

Tsutsui et al.: "Comparative Usefulness of Myocardial Velocity Gradient in Detecting Ischemic Myocardium by a Dobutamine Challenge" J. Am. Coll. Cardiol., vol. 31, 1998, pages 89-93.

McDicken et al.: "Colour Doppler Velocity Imaging of the Myocardium" Ultrasound in Med. & Biol., vol. 18, 1992, pages 651-654.

Palka et al.: "Differences in Myocardial Velocity Gradient Measured Throughout the Cardiac Cycle in Patients With Hypertrophic Cardiomyopathy, Athletes and Patients With Left Ventricular Hyperthrophy Due to Hypertension" J. Am. Coll. Cardiol., vol. 30, 1997, pages 760-768.

Nowicki, et al.: "Assessment of Wall Velocity Gradient Imaging Using a Test Phantom" Ultrasound in Medicine and Biology, vol. 22, 1996, pages 1255-1260.

Uematsu, et al.: "Myocardial Velocity Gradient as a New Indicator of Regional Left Ventricular Contraction: Detection by a Two-Dimensional Tissue Doppler Imaging Technique" J. Am. Coll. Cardiol., 401. 26, 1995, pages 217-223.

Fleming et al.: "Myocardial velocity gradients detected by Doppler imaging" The British Journal of Radiology, vol. 67, 1994, pages 679-688.

Hartley et al.: "Doppler Measurement of Myocardial Thickening with a Single Epicardial Transducer" Am. J. Physiol., vol. 245, 1983, pages H1066-H1072.

O'Donnel et al.: "Internal Displacement and Strain Imaging Using Ultrasonic Speckle Tracking," IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, vol. 41, No. 3, May 1994.

The above-identified reference(s) are listed on the attached PTO Form 1449 and copies are also enclosed herewith.

This submission, is in no way intended as an admission that the above-cited references constitute prior art under any subsection of 35 U.S.C. § 102. Applicant expressly retains the right to take any actions necessary to remove the above-cited references from the available prior art.

Consideration of the above-identified references in the examination of the present patent application is respectfully requested.

No fee is believed to be due because it is believed that this statement and enclosures are being filed before the first Office Action on the merits has been mailed by the PTO. The basis of this belief is that no Office Action on the merits appears to have been received by the undersigned to date. Please charge any fees due in connection with this statement to the deposit account of GTC Account No. 070845.

Respectfully submitted,

Date: November 10, 2003

Peter J. McAndrews
Reg. No. 38,547

Form PTO-1449 (Rev. 8-83) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY DOCKET NO. 12483US05	SERIAL NO. Unassigned
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)	APPLICANT: Torp et al.	
	FILING DATE Herewith	GROUP ART UNIT:

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A	US-5800356-A	07-1998	Criton et al.			
	B	US-5474070-A	12-1995	Ophir et al.			
	C	US-5840028-A	11-1998	Chubachi et al.			
	D	US-5785654-A	07-1998	Linuma et al.			
	C	US-5615680-A	04-1997	Sano			
	F	US-5462058-A	10-1995	Yamada et al.			
	G	US-6099471-A	08-2000	Torp et al.			
	H	US 6352507B1	03-2002	Torp et al.			
	I						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	J	WO 94/23652	10/27/94	PCT	A61B	8/12		
	K							

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AA	Heimdal et al.: "Real-time Strain Velocity Imaging (SVI)" 1997 IEEE Ultrasonics Symposium Proceedings, vol. 2, 1997, pages 1423-1426.
	BB	Jackson et al.: "3-D Ultrasonic Imaging of Structure and Elasticity of the Carotid Bifurcation" IEEE Ultrasonic Symposium Proceedings, vol. 2, 1995, pages 1419-1422.
	CC	Kanai et al.: "Noninvasive Evaluation of local Myocardial Thickening and its Color-Coded Imaging" IEEE Transactions and Ultrasonics, Ferroelectrics and Frequency Control, vol. 44, no. 4, July 1997, pages 752-768
	DD	Tsutsui et al.: "Comparative Usefulness of Myocardial Velocity Gradient in Detecting Ischemic Myocardium by a Dobutamine Challenge" J. Am. Coll. Cardiol., vol. 31, 1998, pages 89-93.
	EE	McDicken et al.: "Colour Doppler Velocity Imaging of the Myocardium" Ultrasound in Med. & Biol., vol. 18, 1992, pages 651-654.
	FF	Palka et al.: "Differences in Myocardial Velocity Gradient Measured Throughout the Cardiac Cycle in Patients With Hypertrophic Cardiomyopathy, Athletes and Patients With Left Ventricular Hyperthrophy Due to Hypertension" J. Am. Coll. Cardiol., vol. 30, 1997, pages 760-768.
	GG	Nowicki, et al.: "Assessment of Wall Velocity Gradient Imaging Using a Test Phantom" Ultrasound in Medicine and Biology, vol. 22, 1996, pages 1255-1260.
	HH	Uematsu, et al.: "Myocardial Velocity Gradient as a New Indicator of Regional Left Ventricular Contraction: Detection by a Two-Dimensional Tissue Doppler Imaging Technique » J. Am. Coll. Cardiol., 401. 26, 1995, pages 217-223.
	JJ	Fleming et al.: "Myocardial velocity gradients detected by Doppler imaging" The British Journal of Radiology, vol. 67, 1994, pages 679-688.
	KK	Hartley et al.: "Doppler Measurement of Myocardial Thickening with a Single Epicardial Transducer" Am. J. Physiol., vol. 245, 1983, pages H1066-H1072.
	LL	O'Donnel et al.: "Internal Displacement and Strain Imaging Using Ultrasonic SpeckleTracking," IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, vol. 41, No. 3, May 1994.

EXAMINER DATE CONSIDERED

*EXAMINER: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.